WOODBURY, Circuit Judge.

The plaintiff in this action charged the defendant with infringement of plaintiff's United States patent No. 2,605,753 issued August 5, 1952 to Dorthy H. Madle, administratrix, and with infringement of its United States patent No. 2,693,789 issued November 9, 1954, to L. J. Lechtenberg and the appeal No. 15,725 is taken by the plaintiff to reverse the judgment rendered against it in the action. The court found that all the claims relied on for each of the two patents which were in suit constituted an aggregation of old elements which in the aggregation perform and produce no new or different function than that heretofore performed or produced by them and that the patents were invalid. The court also held as to each patent that if the patent claims defined inventive combination, the defendant infringed. The defendant appeals in No. 15,729 in respect to that finding of infringement.

The district court makes a complete presentation of the issues and the evidence and proceedings had in the court in its statement, findings of fact and conclusions of law and order for judgment reported at 147 F. Supp. 361, and we proceed to consideration of the points presented on the appeal without repeating the matter reported.

1. As to plaintiff's Madle patent, No. 2,693,789.

The district court declared that the question for its determination was as to what patentable invention was shown by the only claim of that patent relied on by plaintiff, to-wit: claim No. 5, and plaintiff's internal combustion engine embodying the same and after setting forth each and all of the elements of the claim and describing the engine embodying them, the court compared them with prior art and found them to be old and that each performs the same function in plaintiff's structure that it had pre-

viously performed. Our own examination and study of the question presented convinces that the district court was not in error in any of its findings or conclusions.

On its appeal from the judgment in respect to the Madle patent, plaintiff relies largely upon the testimony of the witness, Harry Shore, who testified concerning the operation of plaintiff's so called Magnematic ignition system which was included in the one cylinder four cycle engines made and sold by plaintiff. The system included the elements claimed in plaintiff's Madle patent and the engines worked well. According to Shore they worked better under extremely hard conditions than plaintiff's earlier models. But neither Shore nor any other witness was able to point out any element of the patent that is not present in prior art functioning in the same way to produce the same result and the entire claimed combination, that is the current generating device as a whole, is an old expedient in the prior art. The part of it that may seem to a lay man to be the most ingenious, that is, the part that avails of the centrifugal force which is generated to regulate the locating, advancing and retarding of the spark, goes back half a century. It would indeed be strange if the one cylinder four cycle engine the plaintiff puts out since 1954 worked no better than such engines used to work. As has been pointed out for defendant, plaintiff's engines include a number of helpful features not specified in the Madle patent claims and a vast experience enlightens their manufacture.

It appeared to the district court that defendant's accused engine was like the plaintiff's and infringed if the claim defined inventive combination. Claim No. 5 of the Madle patent contains an express limitation as to the location of the "cam surface on said member [i.e., the centrifugally responsive member] engaged by said cam fol-

lower." Col. 1, Line 71. The claim requires that the position of the members be determined by centrifugal force acting on the member. The only element in defendant's structure whose position is determined by centrifugal force acting on it is the centrifugally responsive arm which does not have a cam surface thereon. The defendant's structure is said to follow that of the old patent to Phelon, No. 2,338,994 (1944). In Phelon as in defendant's structure the rotational position of the cam sleeve is adjusted to vary the spark setting, not by centrifugal force acting on the cam sleeve, but through a lever action exerted on the sleeve by the centrifugally responsive arm. A similar construction is shown in Sturtevant No. 740,781 (1903). A cam surface on a centrifugally responsive arm is shown in Farwell, No. 816,083 (1906). Defendant contends that in an art as crowded as that involved here the difference though involving only ordinary mechanical understanding and skill is sufficient to avoid infringement.

But we conclude that the adjudication by the District Court that the Madle patent is invalid was without error and should be affirmed. The question as to its infringement by the Clinton company is therefore moot and that company's appeal from the contingent declaration of infringement in No. 15,729 should be dismissed without costs.

2. As to plaintiff's Lechtenberg patent No. 2,693,789.

The plaintiff relied at the trial upon ten claims of this patent which the court set out in full at 147 F. Supp. 368 to 371. The court also described the plaintiff's engines made in accord with the disclosure of the patent and their uses. It found that they met with marked commercial success and were adapted to a variety of installations without any alteration in the cylinder crank case casting; that the weight of the engine was reduced by using aluminum

and the cost by using die casting and that the engine was "light, compact, reasonably priced, highly adaptable and outstanding in its field." But when it had given the case further study and considered additional prior art adduced by defendant which had not been before the court at the first trial and had not been considered by the patent office, the court found that none of the disclosures of the patent constituted patentable invention in view of the prior art and prior use, and the combination constituted unpatentable aggregation.

On this appeal, the appellant admits that its engine embodying the Lechtenberg patent "functions in all respects like a conventional prior art four cycle engine" and appellant makes no attempt to refute the court's findings that the elements defined in its ten claims are all old. Nor does it dispute the findings that they function in the combination as they have done heretofore. But it contends that not withstanding its engine does the same work by the same means as the engines of prior art, the court erred in finding and concluding the patent to be invalid. The argument is summed up in appellant's declaration that "the invention resides in devising a four cycle engine which functions in all respects like a conventional prior art four cycle engine, but which has body parts of such form that they can be produced by an advantageous method theretofore not practicable for the production of such parts." The "advantageous method" referred to is die casting certain body parts instead of sand casting them, but "plaintiff's brief emphasizes, to the point of surfeit, that Lechtenberg invented neither the process of die casting, nor any improvement in the technique of die casting."[1]

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1 Quoted from Appellant's reply brief.

Proceeding from these premises, appellant contends that the court erred in failing to find invention by Lechtenberg as so defined and the argument to that effect is greatly extended. But it does not include or proceed upon any reference to or quotations from the claims of the patent.[2] Some of the claims of the patent broadly cover two cycle single cylinder engines and both sand and die cast cylinder and crank case elements and they contain no such limitation or definition of invention as appellant contends for.

The trial court rightly directed its study to the disclosures of the patent and its claims and based its decision on them. The patent discloses an engine in which the cylinder and crank case, save for the wall at the power take off end of the crank shaft, is a single casting and the casting is specifically defined to include sand casting and die casting. That is, the elements are produced by the ordinary means used in the art fully disclosed in the prior art publications of the Lauson engine and Clinton 700 series engine and Bosma, Conover and Vansickle patents. All the claims are drawn to a cylinder and crank case which is a single or one casting regardless of the casting method to obtain the casting and the advantage attributed to its operation is the same whether it is sand cast or die cast. The court found the advantage to be that the engine could be adapted to various and different uses. But that feature was old and as the court found, it was disclosed by the patents to Vansickle, No. 615,766, Conover, No. 2,227,247 and Bosma, No. 2,346,148.

We find no error in that conclusion and when we turn back to the theory of invention and patentability here contended for, we find it to be without merit. The claims were

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2 The only citation from the claims in the entire brief is the last seven lines of claim one relating to interchangeability of parts.

made broad to cover an engine element produced by either kind of casting which resulted in certain advantages in use and when it is found as in this case, that such elements in internal combustion engines were old, and their combination an unpatentable aggregation, the patent can not be saved by asserting limits to the claim not contained in them. The Lechtenberg patent is not a method or process patent and it has no claims that would justify a patent for invention in the method of production of its elements. Its claims are broadly for two and four cycle and sand cast and die cast elements and it is not entitled to the patent monopoly unless its invention was as broad as its claim.

The district court studied the disclosures of the patent and the claims. It found from that study that none of the disclosures constituted patentable invention in view of prior art and use. That all the elements were old and that the ten claims constitute an unpatentable aggregation.

We hold that the court was without error in so proceeding and concluding. As the Supreme Court said in *Graver Tank & Mfg. Co. v. Linde Air Products Co.*, 336 U.S. 271-277 (1949): "We have frequently held that it is the claim which measures the grant to the patentee." The court having properly found that all of the elements of the claim were old and that the combination of them constituted unpatentable aggregation was not in error in adjudging the patent invalid. The contention for appellant that it was entitled to the patent monopoly on engines having single die cast cylinder and crank case parts even if the elements were all old and the combination merely an "aggregation", we find to be without merit.

It appeared to the court that if the patent claims define inventive combination there was infringement, but upon

adjudication that the patent is invalid the question of infringement becomes moot. We conclude that the District Court did not err in holding the patent invalid and that the appeal from the declaration as to infringement should be dismissed.

The judgment in No. 15,725 dismissing the action for invalidity of the patents sued on is affirmed. The appeal in No. 15,729 is dismissed without costs.

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SANBORN, Circuit Judge, concurring.

The engine disclosed by the patent to Lechtenberg, who was a development engineer employed by Briggs & Stratton Corporation, resulted from his being assigned the problem of producing the best four-cycle air-cooled die-cast aluminum gasoline engine that he was capable of making. The cast iron Briggs & Stratton engine which was then being made, and which was largely supplanted later by the Lechtenberg engine, was good, but weighed 36 pounds and sold to manufacturers for $30.45. The engine which Lechtenberg developed and patented weighed 19½ pounds and sold for $21.25. It could be either die cast or sand cast. Its lightness was due to the use of aluminum, and the reduction in cost of production to die casting.

As a practical matter, Lechtenberg's contribution to the art of producing a light, cheap, efficient, air-cooled engine, suitable for furnishing power to rotary lawn mowers and like devices, and susceptible of being die cast, was a meritorious one and was both new and useful. It met with commercial success and was, of course, soon copied by competitors. It is not strange that the District Court first concluded that the Lechtenberg patent was valid and in-

fringed. See and compare, *Diamond Rubber Co. of New York* v. *Consolidated Rubber Tire Co.*, 220 U.S. 428, 440-444, and *Eibel Process Co.* v. *Minnesota & Ontario Paper Co.*, 261 U.S. 45, 63-64. However, as we have pointed out in a number of cases since the Supreme Court decided *Cuno Engineering Corp.* v. *Automatic Devices Corp.*, 314 U.S. 84, the amount of originality and ingenuity, over and beyond novelty and utility, which will constitute invention necessary to sustain a patent for a combination of old elements in a crowded art, has increased. The conclusion of the District Court is not out of line with our recent decisions in such cases. See and compare: *Frank Adam Electric Co.* v. *Colt's Patent Fire Arms Mfg. Co.*, 8 Cir., 148 F.2d 497, 502-503; *Koochook Co., Inc.* v. *Barrett*, 8 Cir., 158 F.2d 463; *Hall Laboratories, Inc.* v. *Economics Laboratory, Inc.*, 8 Cir., 169 F.2d 65; *Alemite Co.* v. *Jiffy Lubricator Co.*, 8 Cir., 176 F.2d 444; *Miller* v. *Tilley*, 8 Cir., 178 F.2d 526; *Minneapolis-Moline Co.* v. *Massey-Harris Co.*, 8 Cir., 208 F.2d 73; and *Steffan* v. *Weber Heating and Sheet Metal Co.*, 8 Cir., 237 F.2d 601. See also: *Blish, Mize and Silliman Hardware Co.* v. *Time Saver Tools, Inc.*, 10 Cir., 236 F.2d 913-916.

Implications in support of the conclusion of the District Court that both patents in suit are invalid, we think reasonably may be drawn from comparatively recent cases decided by the Supreme Court, such as *Detrola Radio & Television Corp.* v. *Hazeltine Corp.*, 313 U.S. 259, 267-269; *Cuno Engineering Corp.* v. *Automatic Devices Corp.*, 314 U.S. 84, 88-92; *Muncie Gear Works, Inc.* v. *Outboard, Marine & Mfg. Co.*, 315 U.S. 759, 768; *Goodyear Tire & Rubber Co., Inc.* v. *Ray-O-Vac Co.*, 321 U.S. 275, 279 (in which a patent was sustained by a 5 to 4 decision in an opinion by the late Mr. Justice Roberts, which met with a strong dissent); *Dow Chemical Co.* v. *Halliburton Oil*

*Well Cementing Co.*, 324 U.S. 320, 328, 330; *Sinclair & Carroll Co., Inc.* v. *Interchemical Corp.*, 325 U.S. 327, 330-331; *Funk Brothers Seed Co.* v. *Kalo Inoculant Co.*, 333 U.S. 127, 131-132; *Mandel Brothers, Inc.* v. *Wallace*, 335 U.S. 291, 295-296; *Jungersen* v. *Ostby & Barton Co.*, 335 U.S. 560, 566-567 (in which the late Mr. Justice Jackson said in his dissenting opinion, page 572: "But I doubt that the remedy for such Patent Office passion for granting patents is an equally strong passion in this Court for striking them down so that the only patent that is valid is one which this Court has not been able to get its hands on."); *Great Atlantic & Pacific Tea Co.* v. *Supermarket Equipment Corp.*, 340 U.S. 147, 150-158; *Crest Specialty* v. *Trager*, 341 U.S. 912, reversing, per curiam, *Trager* v. *Crest Specialty*, 7 Cir., 184 F.2d 577.

I concur in the affirmance of the judgment appealed from in No. 15,725. I also agree that we need not concern ourselves with the question whether the District Court correctly held that if the patents in suit were valid they were infringed by the defendant. Since no one can infringe an invalid patent, there is no necessity for our attempting to determine whether the accused devices would infringe the patents if they were valid. See *Dow Chemical Co.* v. *Halliburton Oil Well Cementing Co.*, supra, page 331 of 324 U.S. That might all depend upon what range of equivalents the patentees would be entitled to if the validity of the patents were to be sustained. I concur in the dismissal of the cross-appeal of the defendant, No. 15,729, as moot.

A true copy.

Attest:

*Clerk, U. S. Court of Appeals, Eighth Circuit.*